

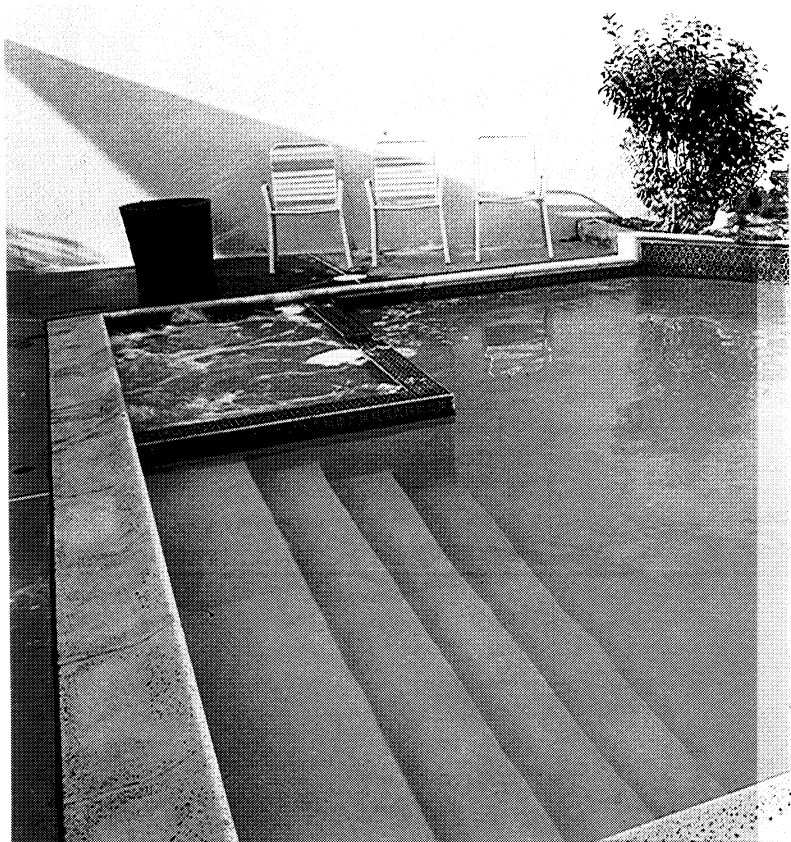
Pool Purification



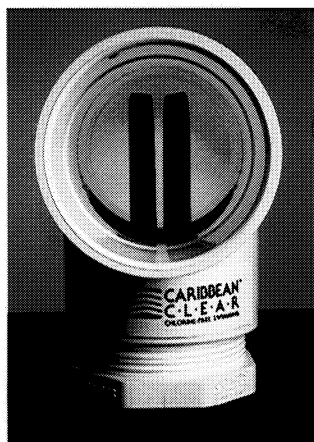
Shown above is a Florida pond cluttered by algae. At right above is the same pond 48 hours after treatment by a new water purification system—no algae and very clear water, evidenced by the clouds reflected on the mirror-like surface of the pond. These before and after photos were made to demonstrate the efficacy of the Caribbean Clear Automatic Pool Purifier, which utilizes NASA technology developed to sterilize the water supply of long duration spacecraft.

In the 1960s and early 1970s, Johnson Space Center conducted a research program aimed at development of a small, lightweight water purifier that would require minimal power and no astronaut monitoring. This program produced an electrolytic silver ion generator only slightly larger than a cigarette pack and weighing only nine ounces. One or more units, mounted at various locations in the potable water supply and wastewater system of Apollo or future spacecraft, would dispense silver ion concentrations of 100 to 300 parts a billion, sufficient to eliminate bacteria in the water within hours.

Caribbean Clear, Inc., a Leesville, South Carolina manufacturer of electronic products, used the NASA technology as the basis for its



Automatic Pool Purifier, a system that offers an alternative approach to the use of conventional purification chemicals. Caribbean Clear's principal markets are swimming pool owners who want to eliminate chlorine and bromine. The purifiers in the Caribbean Clear system are the same silver ions used in the Apollo system to kill bacteria, plus copper ions to kill algae. They produce pool and spa water that exceeds the Environmental Protection Agency's standards for drinking water.



At lower left is a residential swimming pool with a built-in hot tub, both serviced by the Automatic Pool Purifier; the system is effective in both units despite the difference in temperature. Shown above is the key element of the system, two silver-copper alloy electrodes which generate the silver and copper ions when an electric current is passed through them. The rest of the system includes a micro-computer that monitors water condition, water temperature and electrode wear, and a controller that automatically introduces the correct amount of ions into the water; the upper right photo shows the controller with the electrodes and their housings.

Caribbean Clear maintains that purifying a pool with its system costs less than treating the same pool with chlorine and algaecides. The Automatic Pool Purifier requires only a once-weekly test to measure the level of copper ions in the pool; a twist of a knob in the control unit increases or decreases output as required.

Caribbean Clear works with Departments of Health throughout the world and with independent testing laboratories to assure safe, non-toxic water (right).



The system is now available in the U.S. through some 200 franchises, and in 42 foreign countries; there are more than 10,000 units in operation. The company makes units in different models for purifying everything from a small residen-

tial hot tub to a six million gallon commercial pool. In addition to private pool owners, Caribbean Clear numbers among its customers the U.S. Navy, Holiday Inns, Marriott and Sheraton hotels, YMCA facilities and many health clubs. Other applications include killing algae and bacteria in fish ponds, fountains and cooling towers. ▲

